

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 3 PAGES
2. AMENDMENT/MODIFICATION NO. 0003	3. EFFECTIVE DATE 01/18/02	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY U.S. Army Engineer District, Wilmington 69 Darlington Avenue (28403) Post Office Box 1890 (28402-1890) Wilmington, North Carolina	CODE	7. ADMINISTERED BY (If other than Item 6)	CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(X)	9A. AMENDMENT OF SOLICITATION NO. DACW54-01-B-0018	
		X	9B. DATED (SEE ITEM 11) 11/19/01	
			10A. MODIFICATION OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 11)	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.
- Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
- (a) By completing items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

IFB No. DACW54-01-B-0018...121 kV Gas Circuit Breaker Installation, John H. Kerr Dam Powerhouse, Boydton, Virginia is amended as follows:

- a. SECTION 00010: Delete existing SF 1442 (FRONT/BACK) and Page 11 of 141 in their entirety and substitute enclosed revised pages.
- b. SECTION 00600: Add enclosed Page 4 and Page 5 of 17 in their entirety.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

14. DESCRIPTION OF AMENDMENT -- Cont'd

c. SECTION 00700: Add enclosed Page 6 through Page 16 in their entirety.

d. SECTION 00800: Delete existing FAR 52.211-10 in its entirety and substitute enclosed revised FAR Clause, Page 17 of 17.

e. SECTION 01100: Delete existing Page 1 thru Page 33 in their entirety and substitute enclosed revised Page 1 thru 31.

f. SECTION 01270: Delete existing Page 4 thru Page 8 in their entirety and substitute enclosed revised pages.

g. SECTION 16050: Delete existing Page 1, Page 12, Page 13, Page 40 and Page 41 in their entirety and substitute enclosed revised pages.

NOTE:

Text that is added or revised by this amendment is replaced in its entirety and/or underlined and printed in bold and/or stamped appropriately.

The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not underlined with bold text.

h. DRAWINGS.

(1) Add the following new reference drawings:

YS201A-2	SWITCHYARD STRUCTURAL STEEL PLAN & SECTION
YS202A-1	SWITCHYARD STRUCTURAL STEEL TOWER, PULLOFF TRUSS & UTILITY BAY TRUSS
PS810B-2	POWERHOUSE TOWER & SWITCH STRUCTURE
YS204A-1	SWITCHYARD STRUCTURAL STEEL SWITCH STRUTS AND COLUMN DETAILS
YS203A-1	SWITCHYARD STRUCTURAL STEEL FRAME TRUSS DETAILS
YS205A-1	SWITCHYARD STRUCTURAL STEEL MISC. FRAMES & DETAIL

(2) Replace the following drawings:

<u>SHEET NO.</u>	<u>PLATE</u>	<u>TITLTE</u>
8	e03	"MAIN ONE LINE DIAGRAM - NEW EQUIPMENT, SHT. 1"
9	e04	"MAIN ONE LINE DIAGRAM - NEW EQUIPMENT, SHT. 2"
128	e123	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 20
129	e124	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 21

(3) Pen and Ink Changes:

Sheet No. 1 - Plate X01.

Add New Reference Drawings

YS201A-2	SWITCHYARD STRUCTURAL STEEL PLAN & SECTION
YS202A-1	SWITCHYARD STRUCTURAL STEEL TOWER, PULLOFF TRUSS & UTILITY BAY TRUSS
PS810B-2	POWERHOUSE TOWER & SWITCH STRUCTURE
YS204A-1	SWITCHYARD STRUCTURAL STEEL SWITCH STRUTS AND COLUMN DETAILS
YS203A-1	SWITCHYARD STRUCTURAL STEEL FRAME TRUSS DETAILS
YS205A-1	SWITCHYARD STRUCTURAL STEEL MISC. FRAMES & DETAIL

Encls

As stated

SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)		1. SOLICITATION NO. DACW54-01-B-0018	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 19-Nov-2001	PAGE OF PAGES 1 OF 141
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.					
4. CONTRACT NO.		5. REQUISITION/PURCHASE REQUEST NO. W81LJ8-1192-9761		6. PROJECT NO.	
7. ISSUED BY USAED, WILMINGTON-(910)251-4116 ATTN: JOHN B. ROBERTS, II 69 DARLINGTON AVE(28403) PO BOX 1890 WILMINGTON NC 28402-1890 TEL: 910-251-4116 FAX: 910-251-4454		8. ADDRESS OFFER TO (If Other Than Item 7) See Item 7 CODE TEL: FAX:			
9. FOR INFORMATION CALL:	A. NAME JOHN B. ROBERTS, II		B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) 910-251-4116		
SOLICITATION					
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".					
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date): SPECIFICATIONS FOR REMOVAL AND INSTALLATION OF POWERHOUSE SWITCHYARD CIRCUIT BREAKERS [121 kV Gas Circuit Breaker Installation], AT JOHN H. KERR DAM POWERHOUSE, BOYDTON, VIRGINIA. Estimated Cost Range of this Project is \$1,000,000 to \$5,000,000. THIS IS AN UNRESTRICTED SOLICITATION. NOTE 1: Return Section 00600, entitled "Representations & Certifications" with Bid Submittal. NOTE 2: Verbal or written requests for information must be directed to the person listed in Block 9 above. Inquiries and requests that are directed to any other person may not be relayed to the proper person and, therefore, may not be answered. See 52.000-4001 in Section 00100. NOTE 3: Due to increased security, please allow for delays of approximately 45 minutes, for persons and materials entering the District Headquarters Building.					
11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>550</u> calendar days after receiving <input type="checkbox"/> award, <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. (See _____.)					
12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				12B. CALENDAR DAYS 10	
13. ADDITIONAL SOLICITATION REQUIREMENTS: A. Sealed offers in original and <u>2</u> copies to perform the work required are due at the place specified in Item 8 by <u>14:00:00</u> (hour) local time <u>1/31/02</u> (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due. B. An offer guarantee <input checked="" type="checkbox"/> is, <input type="checkbox"/> is not required. C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference. D. Offers providing less than <u>90</u> calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.					

SOLICITATION, OFFER, AND AWARD (Continued) <i>(Construction, Alteration, or Repair)</i>									
OFFER (Must be fully completed by offeror)									
14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)					15. TELEPHONE NO. (Include area code)				
CODE					16. REMITTANCE ADDRESS (Include only if different than Item 14)				
					See Item 14				
FACILITY CODE					17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)				
AMOUNTS									
SEE SCHEDULE OF PRICES					18. The offeror agrees to furnish any required performance and payment bonds.				
19. ACKNOWLEDGMENT OF AMENDMENTS <i>(The offeror acknowledges receipt of amendments to the solicitation — give number and date of each)</i>									
AMENDMENT NO.									
DATE									
20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)					20B. SIGNATURE			20C. OFFER DATE	
AWARD (To be completed by Government)									
21. ITEMS ACCEPTED: <div style="font-size: 1.5em; font-weight: bold; margin-top: 10px;">SEE SCHEDULE</div>									
22. AMOUNT			23. ACCOUNTING AND APPROPRIATION DATA						
24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i>				ITEM		25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)			
26. ADMINISTERED BY			CODE		27. PAYMENT WILL BE MADE BY			CODE	
CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE									
<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.					<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.				
30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)					31A. NAME OF CONTRACTING OFFICER (Type or print)				
30B. SIGNATURE			30C. DATE		31B. UNITED STATES OF AMERICA BY			31C. AWARD DATE	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	Reserved - Not a Bid Item				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0026	Modify Seven (7) Existing Pothead Supports FFP - PURCHASE REQUEST NUMBER W81LJ8-1192-9761	1.00	JOB		

NET AMT _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0027	Modify Existing Benchboard Controls FFP - PURCHASE REQUEST NUMBER W81LJ8-1192-9761	1.00	JOB		

NET AMT _____

Changes in Section 00600

The following clauses which are incorporated by full text have been added or modified:

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) Contractor identification is essential for complying with statutory contract reporting requirements. Therefore, the offeror is requested to enter, in the block with its name and address on the Standard Form 33 or similar document, the annotation "DUNS" followed by the DUNS number which identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

- (1) Company name.
- (2) Company address.
- (3) Company telephone number.
- (4) Line of business.
- (5) Chief executive officer/key manager.
- (6) Date the company was started.
- (7) Number of people employed by the company.
- (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at <http://www.customerservice@dnb.com/>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@dnb.com.

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are () are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have () have not (), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to

obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property;

(C) Are () are not () presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has () has not (), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

Changes in Section 00700

The following clauses which are incorporated by full text have been added or modified:

52.202-1 DEFINITIONS (DEC 2001) --ALTERNATE I (MAY 2001)

- (a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.
- (b) "Commercial component" means any component that is a commercial item.
- (c) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--
- (i) Has been sold, leased, or licensed to the general public; or
 - (ii) Has been offered for sale, lease, or license to the general public;
- (2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
- (3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--
- (i) Modifications of a type customarily available in the commercial marketplace; or
 - (ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;
- (4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;
- (5) Installation services, maintenance services, repair services, training services, and other services if--
- (i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and
 - (ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;
- (6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--
- (i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states

prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans in the workforce of the Contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and

(3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.

(b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans" Employment Report (VETS-100 Report)".

(c) The Contractor shall submit VETS-100 Reports no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date--

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that--

(1) The information is voluntarily provided;

(2) The information will be kept confidential;

(3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and

(4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of clause)

52.225-5 TRADE AGREEMENTS (DEC 2001)

(a) Definitions. As used in this clause.

Caribbean Basin country means any of the following countries: Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, El Salvador, Grenada, Guatemala, Guyana, Haiti, Iceland, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago.

Caribbean Basin country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself. The term excludes products that are excluded from duty-free treatment for Caribbean countries under 19 U.S.C. 2703(b), which presently are--

(i) Textiles and apparel articles that are subject to textile agreements;

(ii) Footwear, handbags, luggage, flat goods, work gloves, and leather wearing apparel not designated as eligible articles for the purpose of the Generalized System of Preferences under Title V of the Trade Act of 1974;

(iii) Tuna, prepared or preserved in any manner in airtight containers;

(iv) Petroleum, or any product derived from petroleum; and

(v) Watches and watch parts (including cases, bracelets, and straps) of whatever type including, but not limited to, mechanical, quartz digital, or quartz analog, if such watches or watch parts contain any material that is the product of any country to which the Harmonized Tariff Schedule of the United States (HTSUS) column 2 rates of duty apply.

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea.

Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services, (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

End product means supplies delivered under a line item of a Government contract.

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services, (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

U.S.-made end product means an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.

(b) Implementation. This clause implements the Trade, Agreements Act (19 U.S.C. 2501, et seq.) and the North American Free Trade Agreement Implementation Act of 1993, (NAFTA) (19 U.S.C. 3301 note), by restricting the acquisition of end products that are not U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products.,

(c) Delivery of end products. The Contracting Officer has determined that the Trade Agreements Act and NAFTA apply to this acquisition. Unless otherwise specified, these trade agreements apply to all items in the Schedule. The Contractor shall deliver under this contract only U.S.-made, designated country, Caribbean Basin country, or NAFTA country end products except to the extent that, in its offer, it specified delivery of other end products in the provision entitled "Trade Agreements Certificate."

(End of clause)

52.225-9 BUY AMERICAN ACT--TRADE AGREEMENTS--BALANCE OF PAYMENTS PROGRAM--
CONSTRUCTION MATERIALS (FEB 2000) *

(a) Definitions. As used in this clause--

Component means any article, material, or supply incorporated directly into construction materials.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) and the Balance of Payments Program by providing a preference for domestic construction material. The Contractor shall use only

domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: None.

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act or Balance of Payments Program applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the

basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act or Balance of Payments Program applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....			
Domestic construction material...			
Item 2			
Foreign construction material....			
Domestic construction material...			

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.225-11 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (DEC 2001)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea, Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Hong Kong, Iceland, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of, Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a designated country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different construction material distinct from the materials from which it was transformed.

Domestic construction material means--

- (1) An unmanufactured construction material mined or produced in the United States; or
- (2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

North American Free Trade Agreement country means Canada or Mexico.

North American Free Trade Agreement country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different construction material distinct from the materials from which it was transformed.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Construction materials. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) and the Balance of Payments Program by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act and the North American Free Trade Agreement (NAFTA) apply to this acquisition. Therefore, the Buy American Act and Balance of Payments Program restrictions are waived for designated country and NAFTA country construction materials.

(2) The Contractor shall use only domestic, designated country, or NAFTA country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: NONE

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent. For determination of unreasonable cost under the Balance of Payments Program, the Contracting Officer will use a factor of 50 percent;

(ii) The application of the restriction of the Buy American Act or Balance of Payments Program to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act or Balance of Payments Program. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act or Balance of Payments Program applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act or Balance of Payments Program applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1:			
Foreign construction material....			
Domestic construction material...			
Item 2:			
Foreign construction material....			
Domestic construction material...			

\1\ Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.236-16 QUANTITY SURVEYS (APR 1984)

(a) Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

(b) The Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(c) Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION.(NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.com>.

(End of clause)

Changes in Section 00800

The following clauses which are incorporated by full text have been added or modified:

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within ten [10] calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than five hundred fifty [550] calendar days, from the date the contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of one thousand three hundred sixty three dollars (\$1,363.00) for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

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SECTION 01100

SUPPLEMENTARY SPECIAL CONTRACT REQUIREMENTS

PART 1 GENERAL

1.1 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
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(a) This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the contract clause entitled "DEFAULT (Fixed Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

(b) The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(7)	(8)	(8)	(7)	(7)	(6)	(8)	(7)	(6)	(6)	(6)	(7)

(c) Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work-day.

(d) The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract

clause entitled "Default (Fixed Price Construction)."

1.2 PERFORMANCE AND PAYMENT BONDS

Each bidder shall include his premiums for performance and payment bonds under item, "Performance and Payment Bonds" of the Bidding Schedule. Payment to the Contractor therefore, shall not exceed the bid price and shall be made in accordance with the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS." Any additional amount bid in excess of the actual bond premium will be included in the final pay estimate for this contract.

1.3 WATER CONSERVATION

Water is one of our valuable natural resources. Accordingly, the Contractor shall be judicious in its use in the performance of the work as specified. Water needed for compaction of roadway and/or foundation materials, and dust control shall be obtained from uncontrolled stream flow instead of potable supply sources to the extent available and suitable as determined by the Contracting Officer.

1.4 BULLETIN BOARD

Immediately upon beginning of work under this contract, the Contractor shall provide at the job site a weatherproof, glass-covered bulletin board for displaying the Fair Employment poster, wage rates, and safety bulletins and posters. The bulletin board shall be located in a conspicuous place, easily accessible to all employees, and legible copies of the aforementioned data shall be displayed until work under the contract is complete. No direct payment will be made for the bulletin board.

1.5 RETAINAGE FOR UNTIMELY SUBMISSION OF SUBCONTRACTING REPORTS

(a) In accordance with Contract Clause 52.219-9I, Small Business and Small Disadvantage Business Subcontracting Plan, and 52.219-16, Liquidated Damages - Small Business Subcontracting Plan, retainage will be withheld from progress payments in an amount sufficient to protect the Government's ability to assess liquidated damages in accordance with Clause 52.219-16 for the contractor's failure to timely submit Standard Form 294, Subcontracting Report for Individual Contracts, and Standard Form 295, Summary Subcontract Report, reports.

(b) The retainage will be determined in accordance with the following formula:

Total dollar amount for subcontracting to small business multiplied by percentage of actual progress on the contract shall be withheld from the next progress payment due after the contractor fails to submit a required report. If one or more reports have been submitted before such failure, formula for determining the amount of retainage will be adjusted by deducting any amounts reported as subcontracted to small business from the total dollar amount proposed to be subcontracted and the difference multiplied by the percentage of actual progress.

(c) Subcontracting plans are not required--

(1) For contracts or contract modifications that will be performed entirely outside of any State, territory, or possession of the United States, the District of Columbia, and the Commonwealth of Puerto Rico; or

(2) For modifications to contracts that do not contain the clause 52.219-8, Utilization of Small Business Concerns and Small Disadvantaged Business concerns (or equivalent prior DAR, FPR, or NASA clauses); e.g., contracts awarded before Pub. L. 95-507 and which are within the scope of the contract.

1.6 SHOP DRAWINGS AND MATERIALS SUBMITTAL

(a) Five (5) days prior to the preconstruction conference (see paragraph REQUIRED CONSTRUCTION MEETINGS), the Contractor shall complete and submit to the Contracting Officer, in duplicate, Submittal Register, listing all submittals and dates. In addition to those items listed on the Submittal Register, the contractor will furnish submittals for any deviation from the plans or specifications. The scheduled need dates must be recorded on the document for each item for control purposes. In preparing the document, adequate time (minimum of 15 days) will be allowed for review and approval and possible resubmittal. Scheduling shall be coordinated with the approved progress schedule. The Contractor's Quality Control representative shall review the listing at least every 30 days and take appropriate action to maintain an effective system. Copies of updated or corrected listings shall be submitted to the Contracting Officer at least every 60 days in the quantity specified. Payment will not be made for any material or equipment which does not comply with contract requirements.

(b) Contractor submittals required by the Technical Provisions are indicated in those provisions and are listed on the Submittal Register furnished in Section 01330, Submittal Procedures. The list does not relieve the Contractor from furnishing submittals required elsewhere in the specifications, those inadvertently omitted from the listing; or from furnishing other submittals that the Government may deem necessary as the work progresses.

(c) Normal review levels for required approvals are indicated by letter designations as follows:

Contractor Quality Control Manager --- (CQC)
Area or Resident Engineer ----- (R)
Engineering Branch ----- (E)

The Government reserves the right to vary the review levels for (R) and (E) to its convenience.

(d) The Contractor shall use ENG Form 4025, furnished in Section 01330, to transmit Shop Drawings, Equipment Data, Material Samples or Manufacturer's Certificate of Compliance to the Government.

1.7 SAMPLING, CERTIFICATES, AND TESTING

(a) General. Within 30 days after acknowledgment of Notice to Proceed, the Contractor shall submit to the Contracting Officer five (5)

copies of a list of the items for which he proposes to furnish manufacturer's certificates and/or samples for inspection and testing. The list shall include, but is not limited to the following information:

- (1) Name of item
- (2) Specification paragraph covering this item
- (3) Date sample will be furnished
- (4) Delivery date of product
- (5) Items for which a certificate will be furnished

(b) Submittals. Any product or item mentioned in these specifications and required to meet Federal, ASTM, AASHTO, U. S. Army or Navy, AREA, AWWA, NEC, and UL* Specifications or Codes, specified herein with certain limiting or qualifying requirements, or any product or item which is required to be similar and equal to a specified product or item may require the submission, before delivery of the product or item to the job site, of one or more of the following:

- (1) Certificate by the manufacturer that the item meets the contract requirements.
- (2) Samples for inspection, comparison, and testing, including destructive tests.

(c) Sample delivery. Unless otherwise specified or authorized, all samples shall be delivered (without cost to the Government) to:

U.S. Army Corps of Engineers
J. H. Kerr Resident Office
ATTN: Jon A. Jones
5460 Buggs Island
Boynton, Virginia 23917

If required by the Contracting Officer, duplicate samples shall be shipped to the Wilmington District Office or other location as directed at no expense to the Government.

(d) Testing. All tests required in the Technical Provisions shall be made by and at the expense of the Contractor except those material tests specifically excluded which will be made by and at the expense of the Government. All instruments and personnel required for the required tests shall be furnished by the Contractor. The Government reserves the right to interrupt the work to make tests on all facets of concreting and other operations. These tests will be made as necessary to insure conformance to applicable specifications and drawings and will be made by and at the expense of the Government except Contractor sampling support as required by the Technical Provisions. In those instances where testing is specified to be made at the Government's expense, the cost of the initial testing will be at the Government's expense; however, any retesting due to failure of the materials to meet the requirements in the initial test shall be performed at the Contractor's expense. The retests shall be made at laboratories approved by the Contracting Officer. The costs of retests

made at Government laboratories will be deducted from the total amount due the Contractor, at actual cost to the Government, unless otherwise specified.

1.8 CERTIFICATES OF COMPLIANCE
(1969 MAY OCE)

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in 3 copies. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

1.9 CONTRACTOR-PREPARED NETWORK ANALYSIS SYSTEM
(APR 1968)

The progress chart to be prepared by the Contractor pursuant to the Contract Clause entitled "SCHEDULES FOR CONSTRUCTION CONTRACTS" shall consist of a network analysis system as described below. In preparing this system the scheduling of construction is the responsibility of the Contractor. The requirement for the system is included to assure adequate planning and execution of the work and to assist the Contracting Officer in appraising the reasonableness of the proposed schedule and evaluating progress of the work.

(a) An example of one of the numerous acceptable types of network and analysis systems is shown in Appendix I of Corps of Engineers Regulation ER 1-1-11 entitled "Network Analysis System," single copies of which are available to bona fide bidders on request. Other systems which are designed to serve the same purpose and employ the same basic principles as are illustrated in Appendix I will be accepted subject to the approval of the Contracting Officer.

(b) The system shall consist of diagrams and accompanying mathematical analyses. The diagrams shall show elements of the project in detail and the entire project in summary.

(1) Diagrams shall show the order and interdependence of activities and the sequence in which the work is to be accomplished as planned by the Contractor. The basic concept of a network analysis diagram will be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities.

(2) Detailed network activities shown on a detailed or sub-network diagram shall include, in addition to construction activities, the submittal and approval of samples of materials and shop drawings, the procurement of critical materials and equipment, fabrication of special material and equipment and their installation and testing. All activities

of the Government that affect progress, and contract required dates for completion of all or parts of the work will be shown. The detail of information shall be such that duration times of activities will range from three (3) to thirty (30) days with not over two percent (2%) of the activities exceeding these limits. The activities which comprise the following separate buildings and features shall be separately identifiable by coding or use of sub-networks or both:

Building or feature
Minimum number of activities

The selection and number of activities shall be subject to the Contracting Officer's approval. Detailed networks, when summary networks are also furnished, need not be time scaled but shall be drafted to show a continuous flow from left to right with no arrows from right to left. The following information shall be shown on the diagrams for each activity: preceding and following event numbers, description of the activity, cost, and activity duration.

(3) Summary Network. If the project is of such size that the entire network cannot be readily shown on a single sheet, a summary network diagram shall be provided. The summary network diagram shall consist of a minimum of fifty activities and a maximum of one hundred and fifty activities, and shall be based on and supported by detailed diagrams. Related activities shall be grouped on the network. The critical path shall be plotted generally along the center of the sheet with channels with increasing float placed towards the top or bottom. The summary network shall be time scaled using units of approximately one-half inch equals one week or other suitable scale approved by the Contracting Officer. Weekends and holidays shall be indicated. Where slack exists, the activities shall be shown at the time when they are scheduled to be accomplished.

(4) The mathematical analysis of the network diagram shall include a tabulation of each activity shown on the detailed network diagrams. The following information will be furnished as a minimum for each activity:

(i) preceding and following event numbers (numbers shall be selected and assigned so as to permit identification of the activities with bid items);

(ii) activity description;

(iii) estimated duration of activities (the best estimate available at time of computation);

(iv) earliest start date (by calendar date);

(v) earliest finish date (by calendar date);

(vi) scheduled or actual start date (by calendar date);

(vii) scheduled or actual finish date (by calendar date);

(viii) latest start date (by calendar date);

- (ix) latest finish date (by calendar date);
- (x) slack or float;
- (xi) monetary value of activity;
- (xii) responsibility for activity (Prime Contractor, subcontractors, suppliers, Government, etc.);
- (xiii) manpower required;
- (xiv) percentage of activity completed;
- (xv) Contractor's earnings based on portion of activity completed; and
- (xvi) bid item of which activity is a part.

(5) The program or means used in making the mathematical computation shall be capable of compiling the total value of completed and partially completed activities and subtotals from separate buildings or feature listed in paragraph (b) (2).

(6) In addition to the tabulation of activities, the computation will include the following data:

- (i) identification of activities which are planned to be expedited by use of overtime or double shifts to be worked including Saturdays, Sundays and holidays;
- (ii) on-site manpower loading schedule;
- (iii) a description of the major items of construction equipment planned for operations of the project. (The description shall include the type, number of units and unit capacities. A schedule showing proposed time equipment will be on the job keyed to activities on which equipment will be used shall be provided); and
- (iv) where portions of the work are to be paid by unit costs, the estimated number of units in an activity which was used in developing the total activity cost.

(7) The analysis shall list the activities in sorts or groups as follows:

- (i) by the preceding event number from lowest to highest and then in the order of the following event number;
- (ii) by the amount of slack, then in order of preceding event number;
- (iii) by responsibility in order of earliest allowable start dates; and
- (iv) in order of latest allowable start dates, then in order of preceding event numbers, and then in order of succeeding event

numbers.

(c) Submission and approval of the system shall be as follows:

(1) A preliminary network defining the Contractor's planned operations during the first sixty (60) calendar days after receipt of Notice to Proceed will be submitted within ten (10) days. The Contractor's general approach for the balance of the project shall be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the whole schedule should be included.

(2) The complete network analysis consisting of the detailed network mathematical analysis (on-site manpower loading schedule, equipment schedule) and network diagrams shall be submitted within forty (40) calendar days after receipt of Notice to Proceed.

(d) The Contractor shall participate in a review and evaluation of the proposed network diagrams and analysis by the Contracting Officer. Any revisions necessary as a result of this review shall be resubmitted for approval of the Contracting Officer within ten (10) calendar days after the conference. The approved schedule shall then be the schedule to be used by the Contractor for planning, organizing and directing the work and for reporting progress. If the Contractor thereafter desires to make changes in his method of operating and scheduling he shall notify the Contracting Officer in writing stating the reasons for the change. If the Contracting Officer considers these changes to be of a major nature he may require the Contractor to revise and submit for approval, without additional cost to the Government, all or the affected portion of the detailed diagrams and mathematical analysis and the summary diagram to show the effect on the entire project. A change may be considered of a major nature if the time estimated to be required or actually used for an activity or the logic of sequence of activities is varied from the original plan to a degree that there is a reasonable doubt as to the effect on the contract completion date or dates. Changes which affect activities with adequate slack time shall be considered as minor changes, except that an accumulation of minor changes may be considered a major change when their cumulative effect might affect the contract completion date.

(e) The Contractor shall submit at intervals of fifteen (15) calendar days a report of the actual construction progress by updating the mathematical analyses. Revisions causing changes in the detailed network shall be noted on the summary network, or a revised issue of affected portions of the detailed network furnished. The summary network shall be revised as necessary for the sake of clarity. However, only the initial submission or completed revisions need be time scaled. Subsequent minor revisions need not be time scaled.

(f) The report shall show the activities or portions of activities completed during the reporting period and their total value as basis for the Contractor's periodic request for payment. Payment made pursuant to the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS" will be based on the total value of such activities completed or partially completed after verification by the Contracting Officer. The report will state the percentage of the work actually completed and scheduled as of the report date and the progress along the critical path in terms of days ahead or behind the allowable dates. If the project is

behind schedule, progress along other paths with negative slack shall also be reported. The Contractor shall also submit a narrative report with the updated analysis which shall include but not be limited to a description of the problem areas, current and anticipated, delaying factors and their impact, and an explanation of corrective actions taken or proposed.

(g) Sheet size of diagrams shall be 30 by 42 inches. Each updated copy shall show a date of the latest revision.

(h) Initial submittal and complete revisions shall be submitted in six (6) copies.

(i) Periodic reports shall be submitted in four (4) copies.

1.10 MINIMUM INSURANCE REQUIREMENTS

(a) In accordance with the Contract Clause entitled "INSURANCE -- WORK ON A GOVERNMENT INSTALLATION," the Contractor shall procure and maintain during the entire performance period under this contract at least the following kinds and minimum amounts of insurance:

(1) Workers' Compensation and Employers' Liability. In the amount required by law of the State in which work is to be performed under this contract or at least \$100,000.

(2) General Liability. Bodily injury liability coverage written on the comprehensive form of policy of at least \$500,000 per occurrence.

(3) Automobile Liability. At least \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage, or a combined single limit of \$500,000.

(b) The Contractor agrees to insert the substance of this clause, including this paragraph, in all subcontracts hereunder.

(c) The Contractor shall submit proof of insurance coverage five (5) days prior to the preconstruction conference in accordance with paragraph, REQUIRED CONSTRUCTION MEETINGS.

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall certify to the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that

require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

1.11 SAFETY REQUIREMENTS

The Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, September 1996, is applicable to work to be performed. Before commencing work, the Contractor shall submit a written Accident Prevention Plan that meets the requirements outlined in Appendix A of EM 385-1-1. No work shall commence until the Accident Prevention Plan is deemed acceptable by the Contracting Officer's Representative. The following is to alert the Contractor to special safety requirements that are to be included in the administration of this contract.

(a) Personnel. The Contractor's personnel responsible for the Contractor's quality control shall also be responsible for enforcing the Corps of Engineers' Safety Requirements and the job safety program referred to in the Contract Clause entitled "ACCIDENT PREVENTION" to the same degree as the Government personnel. This responsibility will be included as an item in the Contractor's job safety program and will be fully discussed at the preconstruction safety conference.

(b) Safety Meeting. Weekly toolbox safety meetings shall be held with all employees and a record of each meeting shall be documented on SAW Form 297- REPORT OF SAFETY MEETING, Attachment 2, and submitted to the Contracting Officer. The Contractor shall make all supervisory employees, including those of subcontractors performing work at the project site, available to the Corps of Engineers' Area/Resident Engineer for a safety meeting for a period of one hour each month. The meeting will be held during the employees regular work period if possible and will be in addition to the safety meetings conducted by the Contractor.

(c) Accident Prevention Preplanning. Plans shall include all pertinent information such as storage areas and methods of access to work areas. The plan for accomplishing the initial phase of work will be submitted five (5) days prior to the preconstruction conference in accordance with paragraph, REQUIRED CONSTRUCTION MEETINGS. Plans for subsequent major phases of work will be submitted not later than two weeks prior to initiation of work on each major phase. In addition to the requirements of the Contract Clause entitled "ACCIDENT PREVENTION" for an overall accident prevention program, the Contractor shall:

(1) Submit a detailed plan for performing each major phase of work.

(2) Require subcontractors to submit their plan of operations showing methods they propose to use in accomplishing major phases of work.

(3) Be prepared to discuss the plans in conferences convened by the Contracting Officer's Representative prior to starting work on each phase of operation.

(4) The accident prevention plan shall be prepared in accordance

with Appendix A of the Corps of Engineers' "Safety and Health Requirements Manual" (EM 385-1-1, September 1996). In addition to the requirements of Appendix A of EM 385-1-1, the plan shall include the names and qualifications of employees trained and qualified in first aid and CPR.

(5) The Contractor shall fully integrate a five-step risk management process into the accident prevention plan. Any actual or potential condition that can cause injury, illness, or death to personnel, damage to or loss of equipment, property or the environment shall be identified, assessed and appropriate actions shall be taken to control the hazards. The process shall follow the requirements set forth in Appendix DD of District Regulation 385-1-1, Attachment 6.

(d) Safety and security of explosive materials. The use of explosives is not permitted on this project. The possession, storage or transportation of explosive materials or devices by the Contractor within the project limits or on Government property is not authorized.

(e) In those cases where it is determined that contract safety requirements are not being met, the Contracting Officer has many options to assure compliance for a safe operation. For imminent danger situations in which the life of a worker is immediately threatened, work in the area affected by the violation will be stopped immediately until the condition is corrected. For non-correction of serious hazards (not immediately life threatening) the Contracting Officer may retain progress payments, or portions thereof, per the PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS clause, or may require the Contractor to remove any employee (supervisor or employee) per the MATERIAL AND WORKMANSHIP clause. Chronic recurrence of serious safety violations may result in termination of the contract in accordance with the DEFAULT (FIXED-PRICE CONSTRUCTION) clause.

1.12 ACCIDENT REPORTING AND RECORD KEEPING

a. All accidents which occur incident to an operation, project, or facility to which the U.S. Army Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1) applies will be investigated, analyzed and reported to identify all causes and recommended corrective actions. The following definitions/parameters shall be used when determining what incidents shall be reported:

(1) Accident - Any unplanned incident that causes personal injury or illness, property damage, or damage to the environment, or an incident that has the potential to result in such consequences.

(a) When single component failure results in the failure of one or more additional components, the resulting consequences shall be considered a property damage accident, and shall be investigated and analyzed to determine cause, and reported to recommend corrective actions (example : failure of a hook roller on a crane that also results in the failure of the center pin is an accident; tire blow-out that results in a crash; failure of a heater to shutoff that results in a fire).

(b) Property damage accident reporting threshold - Any incident meeting the requirements of paragraphs 1.15(a)(1) and 1.15(a)(1)(a) that results in \$2,000 or more in property damage to Government, contractor, or public property.

(2) Employees are responsible for reporting all injuries or occupationally related illnesses as soon as possible to their employer or immediate supervisor. Same day reporting is expected.

(3) Employees and immediate supervisors (including subcontractors) are responsible for reporting all injuries to the Contracting Officer's Representative within 24 hours.

(4) No supervisor shall decline to accept a report of injury from a subordinate.

b. An accident with any of the consequences listed below shall be immediately reported to the Contracting Officer's Representative. These accidents will be investigated in depth to identify all causes and recommended hazard control measures.

(1) Fatal Injury

(2) Three or more persons admitted to a hospital, or

(3) Property damage in excess of \$50,000, or

(4) Injuries which may result in permanent total or permanent partial disability.

Except for rescue and emergency measures, the accident scene shall not be disturbed until it has been released by the Contracting Officer's Representative.

c. A Report of Serious Accident (ROSA) shall be provided to the Contracting Officer's Representative when immediate notification is required. The Report of Serious Accident (ROSA) shall contain the following information:

(1) Name of the employee(s) injured.

(2) Extent of injuries.

(3) Date and time of the accident.

(4) Location of accident and project name.

(5) Activity at the time of the accident.

(6) Name of contractor and contract number.

(7) Description of the accident.

(8) Immediate actions taken to control the hazard.

(9) Other pertinent information.

(10) Name, Position, office and phone number of person reporting the accident.

d. Submission of Accident Reports

(1) Within 2 working days, a complete and properly executed ENG Form 3394, "ACCIDENT INVESTIGATION REPORT" (Attachment 3), shall be forwarded to the Contracting Officer's Representative for each accident which results in property damage, personal injury, or occupational illness regardless of whether the accident results in a fatality, lost workdays, or restricted work activity.

(2) An accident shall be classified as a lost workday accident if the employee was scheduled to work (regular, overtime, or holiday) but was unable to as a result of injuries incurred, medical examinations required, or medication taken as a result of the accident.

(3) Estimates of lost work days, days hospitalized, and restricted duty days shall be based on the best information available at the time ENG Form 3394 is required to be submitted. The Contractor shall not delay in submitting accident investigation reports.

e. Once known, the Contractor shall report the actual number of lost work days, days hospitalized, and restricted duty days to the Contracting Officer's Representative. The Contracting Officer's Representative shall insure that the ENG Form 3394 is annotated accordingly.

f. A daily record of all first aid treatments not otherwise reportable shall be maintained on SAW Form 618, CORPS OF ENGINEERS FIRST AID CASE HISTORY REPORT, Attachment 4, and furnished to the Contracting Officer upon request. A definition of first aid is contained on Attachment 7.

g. In addition to other applicable requirements of EM 385-1-1, the prime contractor shall:

(1) Maintain records of all exposure and accident experience incidental to the work, this includes exposure and accident experience of the prime contractor and of his subcontractors. As a minimum, these records shall include exposure work-hours and a log of occupational injuries and illness. The log of exposure manhours shall be maintained on SAW Form 648, CONTRACTOR MONTHLY EXPOSURE MAN-HOUR REPORT, Attachment 5. The completed form shall be faxed to the Contracting Officer's Representative by the fifth workday of the following month in which the work occurred. The log of occupational injuries and illness shall be maintained on OSHA Form 200 or equivalent as prescribed by 20 CFR 1904.

(2) Maintain records of employee exposure to toxic materials and harmful physical agents (the prime contractor shall immediately notify the Contracting Officer's Representative and employees of any excessive exposure experience and the hazard control measures that will be taken to control the exposure); and

(3) Maintain access to the project's Workers Compensation Claims Report which details the compensable accidents experienced on the project by the Contractor and subcontractor.

1.13 REQUIRED CONSTRUCTION MEETINGS

(a) In addition to meetings required elsewhere in the specifications,

the Contractor and any Subcontractors identified by the Contracting Officer's Representative shall be required to attend a preconstruction meeting (after award of the contract but before Commencement of Work) and a post construction meeting (after final acceptance of the work but before final payment is made). The Contractor and identified Subcontractors shall meet with Corps of Engineers personnel at a time and place determined by the Contracting Officer's Representative.

(b) At the preconstruction conference, the Contractor shall be oriented with respect to Government procedures and line of authority in contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

(c) Fourteen (14) days prior to the preconstruction conference, the Contractor shall submit the following items:

- Certificate of Insurance
- Accident Prevention Plan
- Quality Control Plan
- Certificate of completion of Corps Contractor Quality Control Course
- Preliminary Submittal Register (ENG Form 4288 exclusive of Contractor submittal dates)
- Letter Appointing Superintendent (see Contract Clause entitled Superintendence by the Contractor)
- Power of Attorney and Certified Copy of Resolution for Superintendent
- List of Subcontractors

(d) The letter of record will be written documenting all items discussed at the conference and a copy will be furnished by the Contracting Officer's Representative to all in attendance.

1.14 "AS-BUILT" RECORD DRAWINGS

(a) The Contractor shall be responsible for maintaining in good condition one set of full size drawing prints at the job site, on which he shall keep a careful and neat record of all deviations, field changes and modifications from the original contract drawings which are made to each phase of construction as the work progresses. The Contractor is responsible for noting all changes and corrections on these prints promptly as in-place construction activities occur, but in no case less often than on a weekly basis. In addition to the above, the following shall be included:

(1) Actual location of all Contractor installed subsurface utility lines. Type of materials actually installed, major sizes of lines, etc. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered or obscured, the record drawings shall show, by offset dimensions to two permanently fixed surface features, both ends of each run and each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensions along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

(2) Any shop drawings which constitute part of the design shall be

included with the record drawings.

(3) The manufacturer and model number of all major items of equipment shall be shown on the record drawings.

(4) Upon completion of all construction, the Contractor will delete by notation all references to features not constructed.

(b) These annotated prints shall be certified as to their correctness by the signature of the Contractor and turned over to the Contracting Officer not later than ten (10) days after final acceptance of the work by the Government. Marked up prints shall be reviewed for approval by the Contracting Officer and returned for corrections as necessary.

1.15 FINISH MATERIAL SUBMITTALS

All finish items requiring submittal for approval shall be packaged by the Contractor to form one coordinated submittal for interior finishes and one coordinated and separate submittal for exterior finishes. Each submittal shall clearly convey colors, textures and finishes proposed to permit a complete review on how the finishes interact.

1.16 ASBESTOS PERMIT AND NOTIFICATION

Prior to beginning any demolition or renovation of existing buildings, the Contractor shall submit notification to the appropriate state agency by completing there "Asbestos Permit Application and Notification for Demolition/Renovation" form. State law requires notification whether or not asbestos is present. A copy of the state response shall be submitted to the Government for information.

The following state agencies require notification:

Commonwealth of Virginia
Department of Labor and Industry
205 North 4th Street
Post Office Box 12064
Richmond, Virginia 23241
(804) 786-2376

1.17 IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY

The Government will furnish to the Contractor the property identified in the Schedule below to be incorporated or installed into the work or used in performing the contract. The listed property will be furnished at the J. H. Kerr Powerhouse. The Contractor is required to accept delivery, and transport the property to the job site at its own expense. Within the first 30 days of the contract the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Contracting Officer. The Contractor shall also report in writing to the Contracting Officer within 24 hours of receipt any damage to or shortage of the property as received. All such property shall be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated in this contract.

<u>Item No.</u>	<u>Quantity</u>	<u>Description</u>
1	28	2000 Amperes 121kV
2	18	Gas Circuit Breaker Surge Arrestors

1.18 WORK IN QUARANTINED AREA
(1968 MAY OCE)

The work called for by this contract involves activities in counties quarantined by the Department of Agriculture to prevent the spread of certain plant pests which may be present in the soil. The Contractor agrees that all construction equipment and tools to be moved from such counties shall be thoroughly cleaned of all soil residues at the construction site with water under pressure and that hand tools shall be thoroughly cleaned by brushing or other means to remove all soil. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such a quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5 and attachments, a copy of which will be made available by the Contracting Officer upon request. The Contractor agrees to assure compliance with this obligation by all subcontractors.

1.19 IDENTIFICATION OF EMPLOYEES

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display such identification as may be approved and directed by the Contracting Officer. All prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon the release of any employee. When required by the Contracting Officer the Contractor shall obtain and submit fingerprints of all persons employed or to be employed on the project.

1.20 PUBLIC CONVENIENCE AND SAFETY

(a) Roads to be closed. No road shall be closed to the public by the Contractor until construction of the new facilities infringe upon the public safety or until construction of the new facilities obliterate the existing facilities. The Contractor shall obtain the Contracting Officer's approval before closing any roads. Barricades, danger, warning and detour signs, as required, shall be erected before closing any roads.

(b) Storage of materials. Materials and equipment shall not be stored within roadway rights-of-way or in such a manner as to pose possible danger or obstruction to the traveling public.

1.21 MAINTENANCE DURING CONSTRUCTION

From the first day any work is done, the Contractor shall maintain in an equally satisfactory condition all of the items of work covered by the contract until they are finished, placed in service unfinished, or until all of the work is finally accepted. This maintenance shall be continuous and effective work prosecuted day by day with adequate equipment to the end that roadway and structures are kept in satisfactory and acceptable

condition. The Contractor shall be responsible for maintaining all barricades, danger, warning, and detour signs and lights as specified hereinafter. When no pay item for such maintenance is shown in the Bidding Schedule, the cost of maintenance shall be included in the price bid for other pay items, and no separate payment will be made.

(a) Maintenance when work is suspended. If construction is suspended for any reason, the Contractor shall place the work in such condition as the Contracting Officer directs, before suspension, and shall maintain it in a condition satisfactory to the Contracting Officer throughout the period of the suspension.

(b) Spilled materials. The Contractor shall not allow spilled materials to remain on the highways or anywhere within the work area. Spillage sufficient to create a traffic hazard shall be removed immediately. Other light spillage shall be removed daily.

1.22 PARTNERING

In order to most effectively accomplish this contract, the Government proposes to form a cohesive partnership with the Contractor and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget and on schedule. Integral to the partnership would be a joint Contractor/Government effort to settle any disputes that may arise without costly and time consuming litigation. To that end, a non-binding procedure such as the Alternate Dispute Resolution process could be developed and agreed upon by both parties when it is determined to be necessary. This partnership would be bilateral in make-up and participation will be totally voluntary. Any cost associated with developing this partnership will be agreed to by both parties and will be shared equally with no change in contract price.

1.23 LOAD RESTRICTIONS

The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. A special permit will not relieve the Contractor of liability for damage which may result from such hauling. The Contractor shall not operate equipment of such weight or so loaded as to cause damage to drainage structures or the roadway, or to any other type of improvement, either completed or under construction. Hauling of materials over the base course or surface course under construction shall be limited as directed, and in no case shall legal load limits be exceeded unless permitted in writing. The Contractor shall repair, at his own expense, all damage to the work caused by his equipment.

1.24 PROTECTION OF EXISTING FACILITIES

The Contractor will not be responsible for any alterations to existing structures or utilities except those made by him for his convenience. The Contractor shall protect all existing structures, including bridges, roadway embankments, utilities and improvements from damage, and, in the event of damage as a result of his operations, the Contractor shall be responsible for their repair, restoration, or for all cost of damage resulting therefrom. In addition, the Contractor shall be responsible for any damage to bridge or culvert structures or railway embankments or track

caused by the unauthorized excavation or excavation beyond the project dimensions shown on the plans. If the Contractor elects to have alterations made to any existing structure, utility or other improvements for his convenience, he shall make arrangements with the owner of the facility for such alterations and the agreement shall be approved by the Contracting Officer prior to their alteration.

1.25 PLANT LAYOUT DRAWINGS
(1965 APR OCE)

Drawings, in triplicate, showing the layout of the plant the Contractor proposes to use on the work shall be submitted by the Contractor for review by the Contracting Officer. The drawings shall show the locations of the principal components of the construction plant; offices; shop and storage buildings; housing facilities, if any; and storage areas and yards which the Contractor proposes to construct at the site of the work and elsewhere. The Contractor shall also furnish for review by the Contracting Officer drawings, in triplicate, showing the general features of his aggregate processing plant; aggregate transporting, storage and reclaiming facilities; aggregate rinsing and dewatering plant, if required; coarse aggregate rescreening plant, if required; concrete batching and mixing plant; concrete conveying and placing plant; and when precooling of concrete is required, the cooling plant. The drawings shall appropriately show the capacity of each major feature of the plant including the rated capacity of the aggregate production plant in tons per hour of fine and coarse aggregates; rated capacity of the aggregate transporting, storage and reclaiming facilities; volume of aggregate storage; capacity of cement and pozzolan storage; rated capacity of the concrete batching and mixing plant in cubic yards per hour; rated capacity of the concrete transporting and placing plant in cubic yards per hour; and when used rated capacity of plant for precooling of concrete. Drawings in triplicate showing any changes in plant made during design and erection or after the plant is in operation shall be submitted to the Contracting Officer for review. Two sets of the drawings will be retained by the Contracting Officer and one set will be returned to the Contractor with comments.

1.26 ASBESTOS - (Occupational Health and Environment)

(a) THE CONTRACTOR IS WARNED THAT EXPOSURE TO AIRBORNE ASBESTOS HAS BEEN ASSOCIATED WITH FOUR DISEASES: LUNG CANCER, CERTAIN GASTROINTESTINAL CANCERS, PLURAL OR PERITONEAL MESOTHELIOMA AND ASBESTOSES. Studies indicate there are significantly increased health dangers to persons exposed to asbestos who smoke and further, to family members and other persons who become indirectly exposed as a result of the exposed worker bringing asbestos-laden work clothing home to be laundered.

(b) The Contractor is advised that friable and/or nonfriable asbestos containing material has been identified in area(s) where contract work is to be performed. Friable asbestos containing material means any material that contains more than 1 percent asbestos by weight that hand pressure can crumble, pulverize or reduce to powder when dry. Nonfriable asbestos containing materials do not release airborne asbestos fiber during routine handling and end-use. However, excessive fiber concentrations may be produced during uncontrolled abrading, sanding, drilling, cutting, machining, removal, demolition or other similar activities.

(c) Care must be taken to avoid releasing, or causing to be released, asbestos fibers into the atmosphere where they may be inhaled or ingested. The Occupational Safety and Health Administration (OSHA) has set standards at 29 CFR 1910.1001, for exposure to airborne concentrations of asbestos fibers, methods of compliance, medical surveillance, housekeeping procedures and other measures that must be taken when working with or around asbestos containing materials which release airborne asbestos fibers at concentrations in excess of those established. 29 CFR 1926.58 has been identified as applicable to construction (29 CFR 1926.55 gases, vapors, fumes, dusts and mists). The Environmental Protection Agency (EPA) has established standards at 40 CFR 61.40-61.156 for the control of asbestos emissions to the environment and the handling and disposal of asbestos wastes.

(d) When contract work activities are carried out in locations where the potential exists for exposure to airborne asbestos fibers as described in (b) or where asbestos waste will be generated, the contractor shall assure that all measures necessary to provide effective protection to persons from exposure to asbestos fibers and prevention of contamination to property, materials, supplies, equipment and the internal and external environment are effectively instituted.

(e) As a minimum, the contractor shall comply with the provisions of 29 CFR 1926.58 and 1926.55; 49 CFR 172.101, 172.200-204, 172.316, 173.1090; 40 CFR 61.40-61.156; any state implementing hazardous waste regulation that regulates asbestos as a hazardous waste under the Resources Conservation and Recovery Act (RCRA) requirements and any other applicable federal, state or local requirements.

(f) In addition to the information required in paragraph, SAFETY REQUIREMENTS, the Contractors Accident Prevention Plan must also fully address the following topics, and at the Contractor's option may include additional information as applicable.

(1) Medical Surveillance: (29 CFR 1926.58(m)).

(2) Employee training: Prior to beginning work in asbestos containing material area(s) (29 CFR 1926.58 and 29 CFR 1910.134).

(3) Respiratory protection: (29 CFR 1926.58(h) and 29 CFR 1910.134).

(4) Personal protective clothing and equipment: (29 CFR 1926.58(i)).

The use of compressed air to remove asbestos from workers' clothing is prohibited. The contractor shall specify the type of change room, wash facilities and laundering facilities as applicable.

(5) Airborne asbestos monitoring: (29 CFR 1926.58(f)). Specify the monitoring and analytical procedures to be used prior to, during, and after completion of contract in areas where asbestos containing materials are located. All asbestos monitoring shall be conducted under the guidance of an industrial hygienist certified by the American board of Industrial Hygiene. Samples shall be analyzed by an American Industrial Hygiene Association (AIHA) accredited laboratory proficient in the analysis of

asbestos and asbestos containing materials. Turn around time from end of sampling period to review of results of analyses by Contractor shall be no longer than 72 hours.

(6) Housekeeping: (29 CFR 1926.58(1)). Dry sweeping of contract work areas contaminated with asbestos containing material is prohibited. The Contractor shall specify methods and materials used to package asbestos containing waste and plan to control any accidental airborne release or spill of asbestos containing material.

(7) Methods of Compliance: (29 CFR 1926.58(g)). Contractor shall include procedures relating to engineering controls, local exhaust ventilation, particular tools to be used and work practices (1926.58(g)). Specify methods, materials and equipment to be used to prevent asbestos contamination to property, materials, supplies, equipment and the internal and external environment during maintenance, renovation or other contract activities. Local exhaust ventilation equipment including power operated tools equipped with local exhaust ventilation shall conform with the Standard Fundamentals Governing the Design and operation of Local Exhaust Systems ANSI Z9.2 latest revised edition. Describe the type of high-efficiency filtered (HEPA) vacuum cleaners that shall be used to vacuum asbestos containing materials. Describe methods and materials to be used to assure all asbestos containing material will be thoroughly wetted by use of a wetting agent and water before removal and that airborne asbestos dust will be kept to a minimum.

(8) Methods and materials to be used to decontaminate any property, materials, supplies, equipment and the environment if asbestos contamination results. (29 CFR 1926.58(g)).

(9) Recordkeeping procedures. (29 CFR 1926.58(n) and 1910.20).

(10) Specific description of type of packaging, marking and shipping conveyances to be used to transport asbestos containing waste from the generation point to a storage or disposal facility in compliance with Department of Transportation requirements. (49 CFR 172.101, 172.200-204, 176.316, 173-1090).

(11) Emergency procedures that would be taken if an accident or spill of asbestos containing materials occurs during the transport of asbestos containing waste. (40 CFR 61.140-61.156).

(12) Methods and equipment used to off load and bury asbestos containing waste to control airborne emissions at the burial site. (40 CFR 61.140-61.156).

-(g) The Contractor shall complete and return to the Contracting Officer within 15 working days after the completion of all airborne asbestos monitoring conducted under this contract, a "Summarization of Airborne Asbestos Sampling Results" form provided by the Government (see Attachment 1). NOTE: This completed summarization form is to be used by the US Army Corps of Engineers for statistical information purposes and does not relieve the contractor from his recordkeeping requirements as described in 29 CFR 1926.58(n) and 1910.20.

1.27 COORDINATION WITH OTHER CONTRACTORS

Other Contractors may be working in the vicinity during the time period of this contract. The Contractor shall coordinate his operations with other Contractors in the area as needed to avoid conflicts and delays.

1.28 EQUIPMENT TESTING AND INSTRUCTION

(a) The Contractor shall perform full-scale operational testing as described elsewhere in these specifications to ensure that each individual piece of equipment and all equipment systems installed under this contract are functioning properly. Tests shall be made in presence of the Contracting Officer's Representative and shall be made using all fluids, solutions, and materials required for actual operation.

(b) The Contractor shall make any necessary adjustment to and retest any equipment which fails to perform satisfactorily and in accordance with the contract requirements. The Contractor shall continue to adjust and retest the equipment at no additional cost to the Government until suitable results are obtained.

(c) Portions of the work which include any piece of equipment will not be accepted as substantially complete before the equipment is fully operational both individually and as part of any system in which the piece of equipment is a component.

(d) The requirements of this paragraph are in addition to any testing and instructional requirements of the technical provisions.

(e) No separate payment will be made to the Contractor for fulfilling the requirements of this section. The work shall be considered incidental to the installation of the various equipment systems.

1.29 SAFETY PERFORMANCE SIGN

The Contractor shall furnish and install one (1) safety performance sign at the location designated by the Contracting Officer. The sign shall be installed within 30 days after the Notice to Proceed.

The sign shall be fabricated using 3/4", Douglas Fir, Exterior Marine-Grade, HDO plywood with 4"x4"x12' treated, No. 2 Southern Pine posts installed in 3 feet deep by 12-inch diameter deep by 12-inch diameter holes backfilled with compacted soil. The sign face shall be non-reflective vinyl. All letters and logos shall be die-cut or computer-cut. Letter and logos sizes and application to the plywood panel shall conform to the graphic format shown in the U.S. Army Corps of Engineers Signs Standard Manual. The safety performance sign shall have replaceable numbers mounted on white .060" aluminum plates and screw mounted to the background. Copies of the sign standards manual can be obtained from the Contracting Officer for specific fabrication and installation requirements.

Legends and logos for the safety performance sign shall be as shown on Attachment 1. No direct payment will be made for the safety performance sign.

1.30 CONTRACT DRAWINGS AND SPECIFICATIONS
(AUG 2000) DFAR 252.236-7001

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall-

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

DRAWING FILE NO. JK 105-02-20

SHEET

NO.	PLATE	TITLE
1	X01	COVER SHEET AND DRAWING INDEX
2	X02	PROJECT LOCATION - AND VICINITY MAP
3	X03	PROJECT SITE MAP
4	X04	NOTES AND LEGEND
5	X05	NOMENCLATURE
6	e01	"MAIN ONE LINE DIAGRAM - EQUIPMENT REMOVAL, SHT. 1"
7	e02	"MAIN ONE LINE DIAGRAM - EQUIPMENT REMOVAL, SHT. 2"
8	e03	"MAIN ONE LINE DIAGRAM - NEW EQUIPMENT, SHT. 1"
9	e04	"MAIN ONE LINE DIAGRAM - NEW EQUIPMENT, SHT. 2"
10	e05	SWITCHYARD BAYS 1&2 THREE LINE DIAGRAM-NEW EQUIPMENT
11	e06	SWITCHYARD BAYS 3&4 THREE LINE DIAGRAM-NEW EQUIPMENT
12	e07	LINE METERING THREE LINE DIAGRAM - EQUIPMENT REMOVAL
13	e08	LINE METERING THREE LINE DIAGRAM - NEW EQUIPMENT
14	e09	SYNCHRONIZING DIAGRAM - EQUIPMENT REMOVAL
15	e10	SYNCHRONIZING DIAGRAM - NEW EQUIPMENT
16	e11	MAIN UNIT CONTROL SCHEMATIC - EQUIPMENT REMOVAL
17	e12	MAIN UNIT CONTROL SCHEMATIC - NEW EQUIPMENT
18	e13	LINE 1 PROTECTIVE RELAYING - REMOVAL PLAN
19	e14	LINE 1 PROTECTIVE RELAYING - NEW INSTALLATION
20	e15	LINES 2-6 PROTECTIVE RELAYING - REMOVAL PLAN
21	e16	LINES 2-6 PROTECTIVE RELAYING - NEW INSTALLATION
22	e17	GCB 25 AND 45 CONTROL DIAGRAMS - NEW INSTALLATION
23	e18	NOT USED
24	e19	NOT USED
25	e20	NOT USED
26	e21	NOT USED
27	e22	NOT USED
28	e23	MAIN CONTROL BENCHBOARD - EQUIPMENT REMOVAL
29	e24	MAIN CONTROL BENCHBOARD - NEW EQUIPMENT
30	e25	MAIN CONTROL BENCHBOARD - PANEL ONE NEW EQUIPMENT
31	e26	MAIN CONTROL BENCHBOARD - PANEL TWO NEW EQUIPMENT
32	e27	MAIN CONTROL BENCHBOARD - PANEL THREE NEW EQUIPMENT
33	e28	MAIN CONTROL BENCHBOARD - PANEL FOUR NEW EQUIPMENT
34	e29	MAIN CONTROL BENCHBOARD - PANEL FIVE NEW EQUIPMENT
35	e30	MAIN CONTROL BENCHBOARD - PANEL SIX NEW EQUIPMENT
36	e31	MAIN CONTROL BENCHBOARD - PANEL SEVEN EQUIPMENT REMOVAL
37	e32	MAIN CONTROL BENCHBOARD - PANEL SEVEN NEW EQUIPMENT
38	e33	MAIN CONTROL BENCHBOARD - PANEL EIGHT EQUIPMENT REMOVAL
39	e34	MAIN CONTROL BENCHBOARD - PANEL EIGHT NEW EQUIPMENT
40	e35	MAIN CONTROL BENCHBOARD - PANEL NINE EQUIPMENT REMOVAL
41	e36	MAIN CONTROL BENCHBOARD - PANEL NINE NEW EQUIPMENT
42	e37	MAIN CONTROL BENCHBOARD - PANEL TEN EQUIPMENT REMOVAL
43	e38	MAIN CONTROL BENCHBOARD - PANEL TEN NEW EQUIPMENT
44	e39	MAIN CONTROL BENCHBOARD - PANEL ELEVEN EQUIPMENT REMOVAL
45	e40	MAIN CONTROL BENCHBOARD - PANEL ELEVEN NEW EQUIPMENT
46	e41	MAIN CONTROL BENCHBOARD - PANEL TWELVE EQUIPMENT REMOVAL
47	e42	MAIN CONTROL BENCHBOARD - PANEL TWELVE NEW EQUIPMENT
48	e43	MAIN CONTROL BENCHBOARD - PANEL THIRTEEN EQUIPMENT REMOVAL

SHEET		
NO.	PLATE	TITLE
49	e44	MAIN CONTROL BENCHBOARD - PANEL THIRTEEN NEW EQUIPMENT
50	e45	MAIN INSTRUMENT BOARD - NEW EQUIPMENT
51	e46	MAIN INSTRUMENT BOARD PANEL 14 - CONNECTION DIAGRAM
52	e47	MAIN RELAY BOARD - EQUIPMENT REMOVAL
53	e48	MAIN RELAY BOARD - NEW EQUIPMENT
54	e49	MAIN RELAY BOARD PANEL SEVEN - CABLE REMOVAL
55	e50	MAIN RELAY BOARD PANEL SEVEN - NEW CABLE INSTALLATION
56	e51	MAIN RELAY BOARD PANEL 8 - REMOVAL PLAN
57	e52	MAIN RELAY BOARD PANEL 8 - NEW EQUIPMENT
58	e53	MAIN RELAY BOARD PANEL 9 - REMOVAL PLAN
59	e54	MAIN RELAY BOARD PANEL 9 - NEW EQUIPMENT
60	e55	MAIN RELAY BOARD PANEL 10 - NEW EQUIPMENT
61	e56	MAIN RELAY BOARD PANEL 11 - NEW EQUIPMENT
62	e57	MAIN RELAY BOARD PANEL 12 - NEW EQUIPMENT
63	e58	MAIN RELAY BOARD PANEL 13 - NEW EQUIPMENT
64	e59	MAIN RELAY BOARD PANEL 14 - EQUIPMENT REMOVAL
65	e60	MAIN RELAY BOARD PANEL 14 - NEW EQUIPMENT
66	e61	RECORDER AND LOAD CONTROLLER - FRONT PANELS 3 AND 4
67	e62	RECORDER BOARD REAR PANELS - CONNECTION DIAGRAMS
68	e63	AUTOMATION PANEL NO. 1 CONNECTION DIAGRAM - WIRING REMOVAL
69	e64	AUTOMATION PANEL NO. 1 CONNECTION DIAGRAM - NEW WIRING
70	e65	AUTOMATION PANEL NO. 2 CONNECTION DIAGRAM - EQUIPMENT REMOVAL
71	e66	AUTOMATION PANEL NO. 2 CONNECTION DIAGRAM - PARTIAL NEW WIRING
72	e67	AUTOMATION PANEL NO. 2 - NEW EQUIPMENT CONNECTION DIAGRAM
73	e68	AUTOMATION PANEL NO. 3 - NEW EQUIPMENT CONNECTION DIAGRAM
74	e69	MAIN INSTRUMENT BOARD PANEL 8 - CABLE REMOVAL
75	e70	NOT USED
76	e71	NOT USED
77	e72	SWITCHYARD BREAKERS 12 AND 15 - CONNECTION DIAGRAMS
78	e73	SWITCHYARD BREAKERS 22 AND 25 - CONNECTION DIAGRAMS
79	e74	SWYD. BREAKERS MBT AND ABT - CONNECTION DIAGRAMS
80	e75	"SWYD. BREAKERS 32, 35, 42 & 45 - CT CONNECTIONS"
81	e76	"SWYD. BREAKERS 52, 55, 62 & 65 - CT CONNECTIONS"
82	e77	"SWYD. BREAKERS 72, 75, 82 & 85 - CT CONNECTIONS"
83	e78	"SWYD. BREAKERS 92, 95, 102 & 105 - CT CONNECTIONS"
84	e79	"SWYD. BREAKERS 112, 115, 122 & 125 - CT CONNECTIONS"
85	e80	SWYD. BREAKERS 132 & 135 - CT CONNECTIONS
86	e81	NOT USED
87	e82	NOT USED
88	e83	NOT USED
89	e84	SWITCHYARD PLAN - EXISTING CONFIGURATION
90	e85	SWITCHYARD PLAN - NEW CONFIGURATION
91	e86	SWITCHYARD WORK PLAN
92	e87	SWITCHYARD BAY ONE AND TWO - EQUIPMENT REMOVAL
93	e88	SWITCHYARD BAY ONE AND TWO - NEW EQUIPMENT
94	e89	"SWITCHYARD BAY ONE AND TWO-VIEWS AND DETAILS, SHT 1"
95	e90	"SWITCHYARD BAY ONE AND TWO-VIEWS AND DETAILS, SHT 2"
96	e91	"SWITCHYARD BAY ONE AND TWO-VIEWS AND DETAILS, SHT 3"
97	e92	SWITCHYARD BAYS 1 - 4 - CONDUIT ROUTING
98	e93	SWITCHYARD BAYS 5 - 8 - CONDUIT ROUTING
99	e94	SWITCHYARD BAYS 9 - 13 - CONDUIT ROUTING

SHEET

NO. PLATE

TITLE

100	e95	SWITCHYARD BAYS 1 - 13 - SECTIONAL VIEWS (TYPICAL)
101	e96	KEY INTERLOCK SCHEME AND DETAILS
102	e97	SWITCHYARD TUNNEL PLAN AND - TERMINAL BOXES
103	e98	SWITCHYARD GROUNDING AND - CONCRETE PAD LOCATIONS
104	e99	SWITCHYARD - NEW CONCRETE FOOTINGS
105	e100	POTHEAD STEEL DETAILS - SHEET 1
106	e101	NOT USED
107	e102	NOT USED
108	e103	NOT USED
109	e104	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 1
110	e105	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 2
111	e106	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 3
112	e107	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 4
113	e108	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 5
114	e109	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 6
115	e110	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 7
116	e111	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 8
117	e112	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 9
118	e113	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 10
119	e114	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 11
120	e115	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 12
121	e116	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 13
122	e117	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 14
123	e118	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 15
124	e119	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 16
125	e120	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 17
126	e121	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 18
127	e122	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 19
128	e123	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 20
129	e124	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 21
130	e125	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 22
131	e126	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 23
131	e126	SWITCHYARD CONDUIT AND CABLE SCHEDULE - SHEET 24

INDEX OF REFERENCE DRAWINGS

PA202A-3	EQUIPMENT ARRANGEMENT	- PLAN AT ELEVATION 223.0
PA203A-2	EQUIPMENT ARRANGEMENT	- PLAN AT ELEVATION 240.0
PA204A-1	EQUIPMENT ARRANGEMENT	- PLAN AT ELEVATION 258.0
PA206A-1	"EQUIPMENT ARRANGEMENT	- TRANSVERSE SECTION, UNIT NO. 4"
PA207A-2	"EQUIPMENT ARRANGEMENT	- TRANSVERSE SECTION, STATION SERVICE BLOCK"
PA208A-2	"EQUIPMENT ARRANGEMENT	- TRANSVERSE SECTION, OFFICE BAY"
YC201A-0	"CONCRETE OUTLINE - CONTROL AND POWER TUNNELS,	SHEET 1"
YC202A-0	"CONCRETE OUTLINE - CONTROL AND POWER TUNNELS,	SHEET 2"
YC206A-0	CONCRETE OUTLINE AND REINFORCEMENT - FOOTINGS	
PP422A-1	"INSULATING OIL SYSTEM - TRANSFORMER OIL PIPING,	EL 240.0"

PE306A-1 "EQUIPMENT - TRANSFORMER - 110,000 VOLT LEADS"
PE307A-0 EQUIPMENT-CABLE VAULT AND - SPREADER ROOM ARRANGEMENT
PE308A-0 EQUIPMENT-CABLE VAULT AND SPREADER - ROOM DETAILS-SHEET 1
PE309A-0 EQUIPMENT-CABLE VAULT AND SPREADER - ROOM DETAILS-SHEET 2
PE310A-0 EQUIPMENT-CABLE VAULT AND SPREADER - ROOM DETAILS-SHEET 3
PE311A-0 EQUIPMENT-TUNNELS - CABLE TRAY ARRANGEMENT AND DETAILS
PE312A-0 "EQUIPMENT-TUNNELS - 110,000 VOLT MAIN LEADS"
PE514A-1 WIRINT-MAIN GROUNDING - SCHEMATIC DIAGRAM
PE604A-0 SWITCHBOARDS - STATION SERVICE CONTROL BOARD
PE821A-0 CONDUIT AND GROUNDING-PLAN-ELEVATION 258.0 - OFFICE BAY
PE822A-0 CONDUIT AND GROUNDING-PLAN-EL 240.0 - OFFICE BAY
YE200A-0 EQUIPMENT-MISCELLANEOUS DETAILS-SHEET 1
YE201A-0 EQUIPMENT-TRANSVERSE ELEVATION - 110 KV UNIT BAY
YE201A-0 EQUIPMENT-TRANSVERSE ELEVATION - 110 KV LINE BAY
YE203A-0 EQUIPMENT-LONGITUDINAL ELEVATION - 110 KV STRUCTURE
YE300A-0 "EQUIPMENT-TRANSFORMER - 110,000 VOLT LEADS"
YE301A-0 EQUIPMENT-TUNNELS - CABLE TRAY & POWER LEADS ARRGT. &
DETAILS
YE302A-0 EQUIPMENT-MISCELLANEOUS DETAILS-SHEET 1
YE303A-0 EQUIPMENT-MISCELLANEOUS DETAILS-SHEET 2
YE304A-0 EQUIPMENT-POTENTIAL DEVICE AND - CARRIER CURRENT
EQUIPMENT DETAILS
YE402A-0 LIGHTING FIXTURE AND CABINET DETAILS
YE403A-0 LIGHTING AND SIGNALS - PLAN-BAYS 1 AND 2
YE404A-0 LIGHTING AND SIGNALS - PLAN-BAYS 3 AND 4
YE405A-0 LIGHTING AND SIGNALS - PLAN-BAYS 5 AND 6
YE406A-0 LIGHTING AND SIGNALS - PLAN-BAYS 7 AND 8
YE407A-0 "LIGHTING PLAN - TUNNELS, SHEET 1"
YE408A-0 LIGHTING PLAN - TUNNELS-SHEET 2
YE800A-0 GROUNDING-GENERAL PLAN-110 KV STRUCTURE
YE801A-0 CONDUIT AND GROUNDING - PLAN-BAYS 1 AND 2
YE802A-0 CONDUIT AND GROUNDING - PLAN-BAYS 3 AND 4
YE803A-0 CONDUIT AND GROUNDING - PLAN-BAYS 5 AND 6
YE804A-0 CONDUIT AND GROUNDING - PLAN-BAYS 7 AND 8
YE805A-0 CONDUIT AND GROUNDING - TUNNELS-CONDUIT PLAN
YE806A-0 CONDUIT AND GROUNDING - MISCELLANEOUS DETAILS

YS201A-2 SWITCHYARD STRUCTURAL STEEL PLAN & SECTION
YS202A-1 SWITCHYARD STRUCTURAL STEEL TOWER, PULLOFF TRUSS
& UTILITY BAY TRUSS
PS810B-2 POWERHOUSE TOWER & SWITCH STRUCTURE
YS204A-1 SWITCHYARD STRUCTURAL STEEL SWITCH STRUTS AND
COLUMN DETAILS
YS203A-1 SWITCHYARD STRUCTURAL STEEL FRAME TRUSS DETAILS
YS205A-1 SWITCHYARD STRUCTURAL STEEL MISC. FRAMES & DETAILS

(End of Clause)

1.31 RATES OF WAGES

Heavy wage rate shall apply to all activities conducted on the job site.

General Decision Number VA010085

Superseded General Decision No. VA000085

State: Virginia

Construction Type:

HEAVY

County(ies):

BRUNSWICK

ISLE OF WIGHT

SURRY

EMPORIA*

LUNENBURG

SUSSEX

FRANKLIN*

MECKLENBURG

GREENSVILLE

SOUTHAMPTON

*INDEPENDENT CITIES

HEAVY CONSTRUCTION PROJECTS (Including Sewer and Water Lines)

Modification Number

Publication Date

0 03/02/2001

1 03/09/2001

2 04/06/2001

3 05/04/2001

4 06/01/2001

5 11/23/2001

COUNTY(ies):

BRUNSWICK

ISLE OF WIGHT

SURRY

EMPORIA*

LUNENBURG

SUSSEX

FRANKLIN*

MECKLENBURG

GREENSVILLE

SOUTHAMPTON

BOIL0045B 10/01/1999

Rates

Fringes

BOILERMAKERS

21.37

10.66

ELEC0080E 03/01/2001

Rates

Fringes

ELECTRICIANS:

Brunswick, Greenville,

Lunenburg, Mecklenburg,

and Southampton Counties

19.70

2.50+11.25%

+a

a. Workmen shall take off 2 hours with pay, at the discretion of the employer, on State and National Election days; Tuesday following the first Monday in November, provided they are qualified and vote.

ELEC0666I 12/01/2000

Rates

Fringes

ELECTRICIANS:

Surry and Sussex Counties

21.17

3.18+11.00%

ELEC1340H 12/01/2000

Rates

Fringes

ELECTRICIANS:

Isle of Wight County

18.60

2.25+11.25%

ENGI0147J 05/01/2001

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
Cranes	18.88	5.93
Operators of all cranes of ninety tons and over capacity, and tower and climbing cranes where operator controls are more than one hundred feet above the ground, regardless of their capacity, will be paid \$1.00 per hour over the listed rate.		

* IRON0028H 07/01/2001

	Rates	Fringes
IRONWORKERS, STRUCTURAL & REINFORCING:		
Brunswick, Greenville, Lunenburg, Mecklenburg, and Sussex Counties		18.10
7.35		

IRON0079H 05/01/2001

	Rates	Fringes
IRONWORKERS, STRUCTURAL & REINFORCING:		
Isle of Wight, Southampton, and Surry Counties	18.63	4.86+12.4%

SUVA2033A 06/22/1993

	Rates	Fringes
CARPENTERS	9.73	
CEMENT MASONS	8.67	1.01
LABORERS:		
Unskilled	6.79	
Pipelayers	7.55	
POWER EQUIPMENT OPERATORS:		
Backhoes	9.20	.26
Bulldozers	9.29	1.49
Mechanics	11.26	1.90
TRUCK DRIVERS	7.55	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter

* a conformance (additional classification and rate)
ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

1.32 LIST OF ATTACHMENTS

Sample forms attached at the end of this section include:

- ATTACHMENT 1 - SAFETY PERFORMANCE SIGN
- ATTACHMENT 2 - REPORT OF SAFETY MEETING
(SAW FORM 297)
- ATTACHMENT 3 - ACCIDENT INVESTIGATION REPORT
(ENG FORM 3394)
- ATTACHMENT 4 - CORPS OF ENGINEERS FIRST AID CASE HISTORY REPORT
(SAW FORM 618)
- ATTACHMENT 5 - CONTRACTOR MONTHLY EXPOSURE MAN-HOUR REPORT
(SAW FORM 648)
- ATTACHMENT 6 - APPENDIX DD - RISK MANAGEMENT
(dtd: 29 Jan 2001)
- ATTACHMENT 7 - DEFINITION OF FIRST AID

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

Payment for Bid Item 0005 will be made at the price bid per switch. Price and payment shall include all labor, equipment and materials required to provide and install each new 2000 Ampere, 3-phase, 121 kV, V-Break disconnect switches, controls, wiring, and related hardware.

Bid Item 0006; Remove and Dispose of Existing Oil Circuit Breakers

Payment for Bid Item 0006 will be made at the bid price for each circuit breaker removed. Price and payment shall include all labor, equipment and materials required to remove and dispose of existing Unit, Line, and Main Bus-Tie 121 kV Oil Circuit Breakers, wiring, controls, and related hardware. Insulating oil shall be paid for under item no. 0008.

Bid Item 0007; Remove and Dispose of Existing OCB Bushings

Payment for Bid Item 0007 will be made at the bid price for each unit removed and disposed of. Price and payment shall include all labor, equipment and materials required to remove and dispose of existing Unit, Line, and Main Bus-Tie 121 kV Oil Circuit Breaker Bushings (six per breaker). See Hazardous Material SECTION 02120 for more information.

Bid Item 0008; Remove and Dispose of Insulation Oil

Payment for Bid Item 0008 will be made on a per gallon basis. Price and payment shall include all labor, equipment and materials required to remove and dispose insulation oil. Oil is presently located in the oil circuit breakers, other equipment to be removed from the switchyard, and in oil storage tanks located within the powerhouse. Coordination with project is required for oil removal.

Bid Item 0009; Provide and Install new Concrete Pads

Payment for Bid Item 0009 will be made at the bid price per pad. Price and payment shall include all labor, equipment and materials required to install concrete pads for electrical equipment as shown on the drawings.

Bid Item 0010; Paint Switchyard Support Structure

Payment for Bid Item 0010 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to paint the switchyard steel support structure. See SECTION 09965 for more information. Coordination with the Project personnel and other construction work for access is required.

Bid Item 0011; Install new Government-Furnished 2000 Ampers, 121 kV Gas Circuit Breakers

Payment for Bid Item 0011 will be made at the price bid for each unit installed. Price and payment shall include all labor, equipment and materials required to install new 2000 Ampere, 121 kV Gas Circuit Breakers, wiring, controls, and related hardware.

Bid Item 0012; Remove and Dispose of Existing Synchronizing PT's from Main and Auxiliary Busses

Payment for Bid Item 0012 will be made at the price bid for each unit removed. Price and payment shall include all labor, equipment and materials required to remove and dispose of four existing synchronizing PT's from phase A of the Main and Auxiliary Busses in the switchyard. Oil from this equipment shall be paid for under Bid Item 0008. The bushings from this equipment shall be paid for under Bid Item 0007.

Bid Item 0013; Furnish and Install new Synchronizing PT's

Payment for Bid Item 0013 will be made at the price bid for each unit. Price and payment shall include all labor, equipment and materials required to furnish and install) new synchronizing PT's for phase A of the Main and Auxiliary Busses in the switchyard as per the contract drawings. Installation shall include all wiring, insulating oil, controls and related hardware.

Bid Item 0014; Remove and dispose of Line Metering and Relaying Equipment

Payment for Bid Item 0014 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to remove and dispose of line metering and relaying CC/PD's, PT's, and CT's for six (6) transmission lines. Oil from this equipment shall be paid for under Bid Item 0008.

Bid Item 0015; Furnish and Install new Line Equipment

Payment for Bid Item 0015 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to Furnish and install six (6) new Coupling Capacitors, wiring, insulating oil, and related hardware on phase A of the six (6) transmission lines in the switchyard as shown on the contract drawings.

Bid Item 0016; Furnish and Install new Metering and Relaying PT's

Payment for Bid Item 0016 will be made at the price bid for each PT installed. Price and payment shall include all labor, equipment and materials required to Furnish and install new line metering and relaying PT's, wiring, insulating oil, and related hardware on six (6) transmission lines as shown on the contract drawings.

Bid Item 0017; Remove and Dispose of Cabling

Payment for Bid Item 0017 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to remove and dispose of all control, power, and relaying cabling from the powerhouse to the switchyard as shown on the contract drawings or required by equipment removal under this contract.

Bid Item 0018; Furnish and Install Cabling

Payment for Bid Item 0018 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to furnish and install all control, power, and relaying cabling from the powerhouse to the switchyard as shown on the contract drawings or required for equipment being installed under this contract.

Bid Item 0019; Remove and Dispose of Line Traps

Payment for Bid Item 0019 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to remove and dispose of three Line Traps, one from Line 5 (one on phase A) and two line traps on line six (6) (phases B and C) as shown on the contract drawings.

Bid Item 0020; Furnish and Install new Line Trap

Payment for Bid Item 0020 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to furnish and install a new line trap on phase A of transmission line five (5) as shown on the contract drawings.

Bid Item 0021; Furnish and Install Cabling

Payment for Bid Item 0021 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to furnish and install required interconnect cabling between the control, relaying and instrument boards in the powerhouse to provide a fully functional system.

Bid Item 0022; Remove and Dispose of Existing Surge Arrestors

Payment for Bid Item 0022 will be made at the price bid for each unit.. Price and payment shall include all labor, equipment and materials required to remove and dispose of surge arrestors from transmission line six (6) as shown on the contract drawings.

Bid Item 0023; Install Government Furnished Surge Arrestors

Payment for Bid Item 0023 will be made at the price bid for each unit. Price and payment shall include all labor, equipment and materials required to install eighteen (18) government furnished surge arrestors on six (6) transmission lines as shown on the contract drawings.

Bid Item 0024; Remove Existing Synchronizer, Install new Synchronizer

Payment for Bid Item 0024 will be made at the price bid for each unit. Price and payment shall include all labor, equipment and materials required to remove one (1) existing synchronizer and provide three (3) new synchronizers, install two (2) new synchronizers and supply one (1) synchronizer as a spare. Provide training for project personnel.

Bid Item 0025; NOT USED.

Bid Item 0026; Modify seven (7) Existing Pothead Supports

Payment for Bid Item 0026 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to install a maintenance platform on seven (7) pothead support structures in the switchyard as shown on the contract drawings.

Bid Item 0027; Modify Existing Benchboard Controls

Payment for Bid Item 0027 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to modify the benchboard controls located in the powerhouse control room. Remove existing controls, provide and install new replacement controls, wiring, mimic-bus, and related hardware as required to provide a complete operational system as shown on the contract drawings. May require some sheetmetal work to provide a finished benchboard. Coordination between project personnel and other contracts is required.

Bid Item 0028; Modify Existing Controls

Payment for Bid Item 0028 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to modify existing unit controls and line protection circuits as shown on the contract drawings and as required to provide a fully functional control and line protection system. Coordination with project personnel is required.

Bid item 0029; Repair/Replace Ground Grid and Fencing Connections
Throughout Switchyard

Payment for Bid Item 0029 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to repair/replace ground grid and fencing ground connections throughout the switchyard. Some ground connections between switchyard equipment and fencing and the ground grid have tested as being a bad connection, as shown on the contract drawings. The ground grid lies approximately 1.5-2 feet under the surface of the switchyard. All grounding connections of existing switchyard structure, ground mats, and electrical equipment, and fencing shall be excavated and inspected to verify a good ground connection, if the connection fails inspection by the COR, as per the specifications, the connection shall be replaced with a complete new connection per the specifications. All ground connections to new equipment shall be new and continuous from the grid to the new equipment.

Bid Item 0030a; Initial Asbestos Assessment and Removal

Payment for Bid Item 0030a will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required for the initial asbestos assessment and initial containment, testing, CIH Services, including removal and disposal of material containing asbestos assuming that the initial assessment testing results are below established action levels. Refer to asbestos test report in Appendix A and Section 02080 of the specifications.

Bid Item 0030b; Additional Asbestos Related Costs

Payment for Bid Item 0030b will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required for the additional asbestos related costs associated with removal and disposal of materials containing asbestos and removal and disposal of materials that are in contact with materials containing asbestos, when initial assessment test results are above established action levels per the specifications. Refer to asbestos test report in Appendix A of the specifications.

Bid Item 0031; Miscellaneous Switchyard Materials

Payment for Bid Item 0031 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to provide and install miscellaneous switchyard materials to include but not limited to, sections of copper bus and related bus fittings, connection hardware, cabling, connectors, supports, conduit, junction boxes, conduit fittings, grounding equipment, and all related equipment required to provide a complete and functional switchyard as shown on the contract drawings.

Bid Item 0032; Concrete, Core Drilling, Grouting

Payment for Bid Item 0032 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to provide all required new concrete and grouting for the installation of all new switchyard equipment as per the contract drawings and specifications. If existing conduits entering the existing cable tunnel are not usable, new core drilling into the cable tunnel will be required. Coordination between project personnel is required.

Bid Item 0033; Spare Parts

Payment for Bid Item 0033 will be made as a lump sum job. Price and payment shall include all labor, equipment and materials required to provide spare parts as required by the contract specifications and drawings.

Bid Item 0034; Electrician Hire

Payment for Bid Item 0034 will be made on a per man-hour basis. Man-hours shall be as defined in paragraph 1.2.2 of this Section.

Bid Item 0035; Other Skilled Craftsman Hire

Payment for Bid Item 0035 will be made on a per man-hour basis. Man-hours shall be as defined in paragraph 1.2.2 of this Section.

Bid Item 0036; General Labor Hire

Payment for Bid Item 0036 will be made on a per man-hour basis. Man-hours shall be as defined in paragraph 1.2.2 of this Section.

SECTION 16050

MISCELLANEOUS ELECTRICAL EQUIPMENT
AND WORK FURNISHED BY THE CONTRACTOR

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1.5.1 Identification

The switchyard equipment shall be packaged in such a manner that when received, they and their components can be easily identified by contract and item number. It shall not be necessary to remove packaging prior to installation.

1.5.2 Packaging

All crates, boxes, packages, and containers shall be marked in a weather-resistant manner and shall include the shipper's sequential case numbers, and such case numbers shall identify the contents on a packing list to facilitate the Contracting Officer's immediate detection of any shortage or loss in transit. All packaging shall be suitable for outdoor storage without disintegration and loss of equipment protection.

The packing list shall be firmly secured to the shipment for immediate availability to the Contracting Officer's representative. Components shall be factory assembled into assemblies of suitable shipping dimensions. Large three-pole disconnect switches which cannot be shipped as a unit shall be packaged as one complete single phase switch assembly per crate or box.

1.5.3 Security Against Damage

Crates or boxes shall be of adequate strength to withstand the handling and shipment.

Paper cartons are not acceptable shipping containers, nor is any other type of container which may disintegrate during outside storage. All switchyard equipment and their components shall be secured to prevent damage. The Contractor shall be responsible for all damage incurred during shipping and handling.

The disconnect switch bases shall be securely fastened to the crate or box to prevent shifting of the assembly. The contact surfaces of the blade, contact fingers of the hinge, and contact end subassemblies shall be protected to prevent abrasion of the contact surfaces due to movement between the blade and contact fingers during handling and shipment from place of manufacture to final delivery point. Paper products are not a satisfactory protection of the contact surfaces. The crates or boxes containing the subassemblies shall be substantially constructed to permit stacking of the loaded crates or boxes one above the other. Switch accessories or parts of a size which can be placed in the crated or boxed subassemblies shall be securely fastened to the switch base, crate, or box to prevent breakage or loss.

1.6 MAINTENANCE

1.6.1 Switchyard equipment, Tools and Accessories

The Contractor shall furnish one complete set of all special tools, wrenches, and other appurtenant equipment that may be necessary or convenient for assembling, aligning, or disassembling the switchyard equipment which is supplied and installed by the Contractor.

1.7 SPARE PARTS

1.7.1 All spare parts shall be of the same material, workmanship, and manufacture as the corresponding original parts, and they shall be interchangeable therewith. The following spare parts shall be furnished:

- a. Six (6) complete assemblies of stationary and moving shoes, or tip assemblies, for main contacts of one pole of main disconnecting switch of each type and rating.

- b. Three complete assemblies of stationary and moving shoes, or tip assemblies, for one pole of one grounding switch.
- c. One complete set of auxiliary contacts and springs, if used, for one 3-pole disconnecting switch of each type and rating.
- d. Three disconnect switch insulator units of each size and rating.
- e. Three sets of switchyard bus connection hardware.
- f. One set of three, line metering and relaying potential transformers.
- g. One main or auxiliary bus synchronizing potential transformer.
- h. One line coupling capacitor unit.
- i. Three auxiliary relays of each type.
- j. One bus differential lock-out, hand reset relay.
- k. One automatic synchronizer.

PART 2 PRODUCTS

2.1 SWITCHYARD DISCONNECT SWITCHES

2.1.1 General

The equipment to be furnished under this section of the specifications consists of disconnect switches for 115 kV, 60-Hz, circuits in the switchyard at John H. Kerr Powerhouse. The disconnecting switches shall be complete with terminal connectors, operating mechanisms, hardware, accessories, auxiliary contacts, grounding blades (if required) and necessary mounting devices, all as specified herein.

The Unit disconnect switches shall be three-pole, outdoor, horizontal under hung mounted, vertical-break, three-insulator-stack type, group-operated, with arcing horns and grounding blades as stated in the Schedule. The vertical motion of the switch blades shall be accomplished through the rotation about its vertical axis of one insulator stack per pole in each switch. The switches shall be designed for mounting on the underside of the switchyard structure as shown on the contract drawings without modifications or additions to the structure.

The Line disconnect switches shall be three-pole, outdoor, horizontal under hung mounted, vertical-break, three-insulator-stack type, group-operated, with arcing horns and grounding blades as stated in the Schedule. The vertical motion of the switch blades shall be accomplished through the rotation about its vertical axis of one insulator stack per pole in each switch. The switches shall be designed for mounting on the underside of the switchyard structure as shown on the contract drawings without modifications or additions to the structure.

The Switchyard Main and Auxiliary Bus Tie-Breakers isolating disconnect switches shall be three-pole, outdoor, horizontal upright mounted, "V"-Type,

existing equipment bolts or screws shall be used where possible for fastening. Drilling of equipment housings or frames will be permitted only when approved. Concrete anchors shall be used for wall fastening,

3.11.2 Kerr Switchyard Grounding System

The switchyard grounding system shall be repaired and extended to include equipment installed under this contract and to existing equipment and structures as shown or detailed on the drawings. Where required to make conduits and other metallic runs electrically continuous, approved copper jumpers or bonding shall be provided.

The ground grid is buried approximately one foot deep throughout the switchyard. The contractor shall excavate and repair all ground connections indicated on the drawings and in the attached report. In addition, the contractor shall excavate all ground connections throughout the switchyard and perimeter fencing. The Contracting Officers Representative shall inspect each ground connection and if deemed necessary the contractor shall repair or replace the ground connections. Repaired ground connections shall be made using new conductors and Cadweld style connections to the grid conductor, and appropriate connections to non-embedded equipment.

All exposed connections and taps shall be made with approved bolted or compression connectors unless otherwise shown on the drawings. Solder-type connectors will not be permitted. Connections and taps embedded or buried shall be made by a molded powdered metal weld similar and approved equal to the Cadweld Electrical Connection, Erico Products, Inc., Cleveland, Ohio 44139. Welded connections shall be made only by journeymen who have proven their ability. Welds shall be made in accordance with the manufacturer's recommendations. Surfaces to be welded shall be thoroughly cleaned and dry. Oxidation, especially on galvanized surfaces, shall be removed. The welding mold shall be cleaned of dirt and slag from previous welds. The quality of the finished weld shall be such that it is free from pits and voids. The switchyard grounding repair work can follow the work as each portion of the switchyard is taken out of service.

3.12 ELECTRICAL CONNECTIONS

All electrical connections shall be made with approved terminal lugs.

3.12.1 Preparation for Operation

All switchyard equipment shall be inspected by the Contractor and adequate time shall be allowed for inspection by the Contracting Officer before starting. All grease and protective coating shall be removed and surfaces cleaned and dried. All surfaces, ventilating openings and other parts shall be clean and free from obstructions. Contact surfaces shall be cleaned in an approved manner. All lubrication shall be checked and necessary lubricants as recommended by the manufacturer shall be applied. When equipment is completely installed, the Government shall be notified.

3.13 PAINTING OF ELECTRICAL EQUIPMENT

Interior and exterior steel surfaces of equipment enclosures shall be thoroughly cleaned and then, if not galvanized, shall receive a rust-inhibitive phosphatizing or equivalent treatment prior to painting. Interior surfaces shall receive not less than one coat of paint in accordance with the manufacturer's standard practice. Exterior surfaces shall be primed, filled where necessary, and given not less than two coats of quick air-drying lacquer or synthetic enamel with semigloss finish, ANSI 70 gray in color.

Painting of existing cabinets in the switchyard shall be included in this work.

3.14 PAINTING OF THE SWITCHYARD STRUCTURE

All parts of the switchyard steel support structure shall be painted. This shall include, but not be limited to, bus supports, disconnect switch supports, transmission line support towers, pothead supports, surge arrester stanchions, PT and CT supports, and steel cross supports. All electrical equipment, new and existing, shall not be painted, and shall be adequately protected during painting of the structure. The painting of the switchyard structure shall be performed after the demolition of existing equipment and installation of new equipment has been completed in the designated work area. During the installation phase of construction, there will be areas of the switchyard next to construction areas that are energized and would be extremely difficult to paint, especially with other contractors working in the same areas. After the installation work is completed, short isolated outages shall be conducted for the purpose of painting the structure that will isolate entire sections of the switchyard. These outages shall be coordinated with project personnel the installation contractor and with the Power Utility. A minimum of three (3) weeks before beginning of the work the Contractor shall submit to the COR for approval a detailed work schedule in a spreadsheet format showing which sections of the switchyard are to be painted and when the work is to be performed. This work shall also include painting of chain link fences in and around the perimeter of the switchyard.

3.15 SEQUENCE OF WORK IN SWITCHYARD

The demolition of existing equipment and installation of new equipment in the switchyard will require substantial coordination between the Kerr Powerhouse, the construction Contractor, and SEPA to determine which switchyard equipment can be taken out of service and for how long.

PHASE 1

Isolate the entire auxiliary bus using disconnect switches No. 14, 24, 34, through 134 and operate on the main bus during this stage. This would allow the removal of the synchronizing PT's, all the motor-operated disconnect switches, breaker disconnect switches, oil circuit breakers and related conduit, cabling and equipment on that side of the switchyard between disconnect switches No. 14 - 134 and the auxiliary bus.

Auxiliary OCB CT wiring for line protection shall be removed from line relaying scheme, and associated line transfer switches shall be tagged to keep protection on the main bus line OCB.

Remove transformer differential CT wiring from auxiliary OCB to main OCB.

During removal of auxiliary OCB control wiring, disconnect DC control source wiring from auxiliary bus breaker controls only. (Auxiliary and main breakers use same DC control circuit.)

Remove auxiliary bus sectionalizing MOD control switches and interlock switches from the benchboards.

Install new PT's for the two auxiliary bus sections and wire for manual and automatic synchronizing.

The new concrete pads could be constructed, the new synchronizing PT's, the new gas circuit breakers, new disconnect switches and related conduit, cabling and equipment could all be installed the length of the switchyard.

The transformer differential CT wiring from the transformer auxiliary breakers will need to be installed from the breakers to the relay board in the